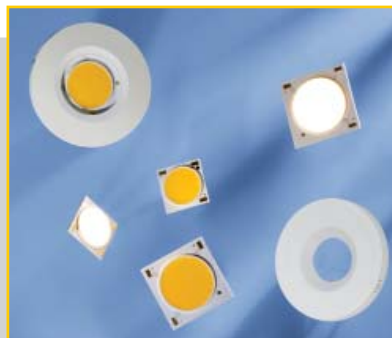


LED MODULES

LUGA SHOP GEN. 5
1000 LM TO 20,000 LM



LUGA SHOP GEN. 5 – RETAIL AND INDUSTRIAL LIGHTING

Typical Applications

DMS123***G

- Integration in reflector luminaires
- Residential lighting
- Furniture lighting

DMS124/125/126/128***G

DMS120/12C***G

- Integration in reflector luminaires
- Retail lighting
- Downlights

DMS18C/18Q***G

- Integration in outdoor and street luminaires
- Industrial lighting for:
 - Production halls
 - Warehouses
- Petrol station lighting
- Lighting for sports facilities

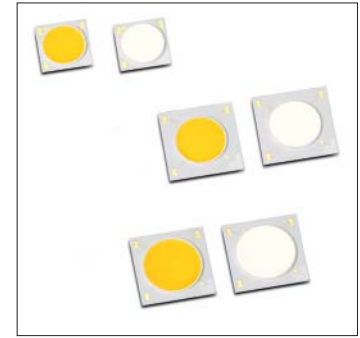
LUGA Shop Gen. 5

- **LONG SERVICE LIFETIME: UP TO 100,000 HOURS**
- **NARROW COLOUR TOLERANCES:
2 STEP MACADAM (CRI 85/95)**
- **HIGHLY EFFICIENT: UP TO 180 LM/W**
- **HIGH ELECTRICAL ISOLATION DUE TO
CERAMIC COB TECHNOLOGY**
- **SPECIAL COLOURS:
FOOD, PEARL WHITE AND CLEAR WHITE**
- **READY-TO-ASSEMBLE VARIANT:
MODULE + TIM + HOLDER AS ONE UNIT**

LUGA Shop Gen. 5 – 1000 lm to 2000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 13.5x13.5 mm
- Light emitting surface (LES): Ø 8.8 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65\text{ °C}$

Type	Typ. voltage DC			Temperature coefficient mV/K	Typ. power consumption		
	250 mA V	350 mA V	500 mA V		250 mA W	350 mA W	500 mA W
DMS123***G	34.8	35.8	36.7		8.7	12.5	18.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^{\circ}\text{C}$ min.	$^{\circ}\text{C}$ max.	$^{\circ}\text{C}$ min.	$^{\circ}\text{C}$ max.	$^{\circ}\text{C}$ min.	$^{\circ}\text{C}$ max.	
DMS123***G	250	-40	+110	-40	+40	-40	+105	600
	350		+100					
	500		+85					

Operating Life

at $t_p = 65\text{ °C}$

Lumen maintenance	250 mA	350 mA	500 mA
	in hours	in hours	in hours
DMS123***G (at I_f)			
L90/B10	81,000	70,000	53,000
L80/B10	> 100,000	> 100,000	79,500
L70/B10	> 100,000	> 100,000	> 100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – 1000 lm to 2000 lm

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI R_a	Photo-metric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS123C27G	563424	warm white	2700	1145	132	1505	120	1970	107	120	82	827/249
DMS123C30G	563425	warm white	3000	1230	141	1620	130	2115	115	120	85	830/249
DMS123C35G	563426	neutral white	3500	1250	144	1655	132	2160	117	120	85	835/249
DMS123C40G	563427	neutral white	4000	1280	147	1685	135	2205	120	120	85	840/249
DMS123C50G	563428	cool white	5000	1290	148	1700	136	2225	121	120	85	850/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80

Minimum order quantity: 225 pcs.

LUGA Shop Gen. 5 – 1000 lm to 2000 lm Pearl White

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI R_a	Photo-metric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS123C31GP	563429	pearl white	3100	1205	139	1585	127	2080	113	120	85	831/249
DMS123S31GP	563434	pearl white	3100	980	113	1280	102	1680	91	120	95	931/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80 / > 90

Minimum order quantity: 225 pcs.

LUGA Shop Gen. 5 – 1000 lm to 2000 lm – HiCRI

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI R_a	Photo-metric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS123D27G	563430	warm white	2700	900	103	1180	94	1555	85	120	95	927/249
DMS123S30G	563431	warm white	3000 (below BBL)	955	110	1250	100	1640	89	120	95	930/249
DMS123S35G	563432	neutral white	3500 (below BBL)	1010	116	1330	106	1740	95	120	95	935/249
DMS123S40G	563433	neutral white	4000 (below BBL)	1050	121	1380	110	1805	98	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 90

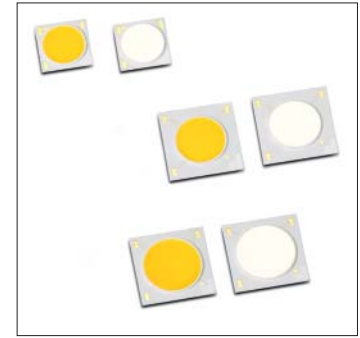
Minimum order quantity: 225 pcs.

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LUGA Shop Gen. 5 – 1500 lm to 5000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 19x19 mm
- Light emitting surface (LES): Ø 11 mm, Ø 14 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65\text{ °C}$

Type	Typ. voltage DC				Temperature coefficient mV/K	Typ. power consumption			
	350 mA V	500 mA V	700 mA V	1050 mA V		350 mA W	500 mA W	700 mA W	1050 mA W
DMS124***G	35	35,9	—	—		12.2	18	—	—
DMS125***G	34.4	35.3	36.3	—		12	17.7	25.4	—
DMS126***G	34.1	34.9	35.8	36.9		11.9	17.4	25.1	38.8
DMS128***G	33.4	34.1	35	36.1		11.7	17	24.5	37.9

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		°C min.	°C max.	°C min.	°C max.	°C min.	°C max.	
DMS124***G	350	-40	+110	-40	+40	-40	+105	800
	500	-40	+100					
DMS125***G	350	-40	+115	-40	+40	-40	+105	1000
	500		+105					
	700		+95					
DMS126***G	350	-40	+120	-40	+40	-40	+105	1200
	500		+115					
	700		+105					
	1050		+90					
DMS128***G	350	-40	+120	-40	+40	-40	+105	1600
	500		+115					
	700		+110					
	1050		+95					

Operating Life

at $t_p = 65\text{ °C}$

lumen maintenance	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours
	DMS124***G (at If)				DMS125***G (at If)			
L90/B10	80,000	68,000	—	—	85,000	76,000	63,000	—
L80/B10	> 100,000	> 100,000	—	—	> 100,000	> 100,000	94,500	—
L70/B10	> 100,000	> 100,000	—	—	> 100,000	> 100,000	> 100,000	—
	DMS126***G (at If)				DMS128***G (at If)			
L90/B10	95,000	87,000	76,000	59,000	92,000	86,000	78,000	63,000
L80/B10	> 100,000	> 100,000	> 100,000	88,500	> 100,000	> 100,000	> 100,000	94,500
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000

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LUGA Shop Gen. 5 – 1500 lm to 5000 lm

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _G	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS124C27G	563147	warm white	2700	1610	132	2175	121	—	—	—	—	120	82	827/249
DMS124C30G	563148	warm white	3000	1730	142	2335	130	—	—	—	—	120	85	830/249
DMS124C35G	563149	neutral white	3500	1765	145	2385	133	—	—	—	—	120	85	835/249
DMS124C40G	563150	neutral white	4000	1800	148	2430	135	—	—	—	—	120	85	840/249
DMS124C50G	563151	cool white	5000	1820	149	2455	136	—	—	—	—	120	85	850/249
DMS125C27G	563159	warm white	2700	1690	141	2295	130	2995	118	—	—	120	82	827/249
DMS125C30G	563160	warm white	3000	1815	151	2465	139	3220	127	—	—	120	85	830/249
DMS125C30GB	563161	warm white	3000 (below BBL)	1720	143	2330	132	3040	120	—	—	120	85	830/249
DMS125C35G	563162	neutral white	3500	1855	155	2510	142	3285	129	—	—	120	85	835/249
DMS125C35GB	563163	neutral white	3500 (below BBL)	1750	146	2375	134	3095	122	—	—	120	85	835/249
DMS125C40G	563164	neutral white	4000	1890	158	2560	145	3350	132	—	—	120	85	840/249
DMS125C40GB	563165	neutral white	4000 (below BBL)	1780	148	2420	137	3155	124	—	—	120	85	840/249
DMS125C50G	563166	cool white	5000	1905	159	2590	146	3385	133	—	—	120	85	850/249
DMS126C27G	562770	warm white	2700	1735	146	2375	136	3130	125	4260	110	120	82	827/249
DMS126C30G	562771	warm white	3000	1870	157	2550	147	3375	134	4575	118	120	85	830/249
DMS126C30GB	562772	warm white	3000 (below BBL)	1760	148	2405	138	3180	127	4320	111	120	85	830/249
DMS126C35G	562773	neutral white	3500	1905	160	2600	149	3435	137	4675	120	120	85	835/249
DMS126C35GB	562774	neutral white	3500 (below BBL)	1795	151	2450	141	3245	129	4410	114	120	85	835/249
DMS126C40G	562775	neutral white	4000	1940	163	2655	153	3505	140	4760	123	120	85	840/249
DMS126C40GB	562776	neutral white	4000 (below BBL)	1830	154	2500	144	3315	132	4490	116	120	85	840/249
DMS126C50G	562777	cool white	5000	1960	165	2675	154	3535	141	4810	124	120	85	850/249
DMS128C27G	562224	warm white	2700	1720	147	2380	140	3180	130	4420	117	120	82	827/249
DMS128C30G	562225	warm white	3000	1855	159	2555	150	3420	140	4745	125	120	85	830/249
DMS128C30GB	562226	warm white	3000 (below BBL)	1740	149	2410	142	3230	132	4485	118	120	85	830/249
DMS128C35G	562227	neutral white	3500	1885	161	2610	154	3495	143	4845	128	120	85	835/249
DMS128C35GB	562228	neutral white	3500 (below BBL)	1785	153	2460	145	3290	134	4570	121	120	85	835/249
DMS128C40G	562229	neutral white	4000	1925	165	2660	156	3555	145	4945	130	120	85	840/249
DMS128C40GB	562230	neutral white	4000 (below BBL)	1820	156	2510	148	3355	137	4660	123	120	85	840/249
DMS128C50G	562231	cool white	5000	1945	166	2685	158	3595	147	4980	131	120	85	850/249
DMS128B50G	562232	cool white	5000	2075	177	2865	169	3830	156	5240	138	120	70	750/569

* Colour tolerance: 2 MacAdam (CRI > 80) | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI R_G: > 80 / > 65

Minimum order quantity: 175 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – 1500 lm to 4500 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _a	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS124C31GP	563153	pearl white	3100	1695	139	2290	127	–	–	–	–	120	85	831/249
DMS124S31GP	563158	pearl white	3100	1375	113	1855	103	–	–	–	–	120	95	931/249
DMS125C31GP	563168	pearl white	3100	1780	148	2415	136	3155	124	–	–	120	85	831/249
DMS125C32GC	563169	clear white	3200	1790	149	2430	137	3170	125	–	–	120	85	832/249
DMS125S31GP	563174	pearl white	3100	1440	120	1955	110	2555	101	–	–	120	95	931/249
DMS126C31GP	562779	pearl white	3100	1830	154	2500	144	3305	132	4485	116	120	85	831/249
DMS126C32GC	562780	clear white	3200	1840	155	2510	144	3320	132	4510	116	120	85	832/249
DMS126S31GP	562785	pearl white	3100	1480	124	2025	116	2675	107	3635	94	120	95	931/249
DMS126S32GC	562786	clear white	3200	1485	125	2035	117	2685	107	3645	94	120	95	932/249
DMS128C31GP	562233	pearl white	3100	1815	155	2505	147	3350	137	4655	123	120	85	831/249
DMS128C32GC	562234	clear white	3200	1825	156	2515	148	3370	138	4675	123	120	85	832/249
DMS128S31GP	562239	pearl white	3100	1470	126	2030	119	2710	111	3765	99	120	95	931/249
DMS128S32GC	562240	clear white	3200	1475	126	2040	120	2725	111	3780	100	120	95	932/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: $> 90 / > 80$

Minimum order quantity: 175 pcs.

LUGA Shop Gen. 5 – 1000 lm to 4000 lm – HiCRI

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _a	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS124D27G	563154	warm white	2700	1265	104	1705	95	–	–	–	–	120	95	927/249
DMS124S30G	563155	warm white	3000 (below BBL)	1335	109	1805	100	–	–	–	–	120	95	930/249
DMS124S35G	563156	neutral white	3500 (below BBL)	1415	116	1915	106	–	–	–	–	120	95	935/249
DMS124S40G	563157	neutral white	4000 (below BBL)	1475	121	1985	110	–	–	–	–	120	95	940/249
DMS125D27G	563170	warm white	2700	1330	111	1800	102	2355	93	–	–	120	95	927/249
DMS125S30G	563171	warm white	3000 (below BBL)	1410	118	1910	108	2495	98	–	–	120	95	930/249
DMS125S35G	563172	neutral white	3500 (below BBL)	1495	125	2025	114	2640	104	–	–	120	95	935/249
DMS125S40G	563173	neutral white	4000 (below BBL)	1545	129	2095	118	2740	108	–	–	120	95	940/249
DMS126D27G	562781	warm white	2700	1365	115	1870	107	2465	98	3350	86	120	95	927/249
DMS126S30G	562782	warm white	3000 (below BBL)	1445	121	1970	113	2610	104	3545	91	120	95	930/249
DMS126S35G	562783	neutral white	3500 (below BBL)	1530	129	2095	120	2765	110	3755	97	120	95	935/249
DMS126S40G	562784	neutral white	4000 (below BBL)	1585	133	2165	124	2870	114	3900	101	120	95	940/249
DMS128D27G	562235	warm white	2700	1355	116	1870	110	2505	102	3470	92	120	95	927/249
DMS128S30G	562236	warm white	3000 (below BBL)	1435	123	1980	116	2650	108	3675	97	120	95	930/249
DMS128S35G	562237	neutral white	3500 (below BBL)	1515	129	2105	124	2815	115	3895	103	120	95	935/249
DMS128S40G	562238	neutral white	4000 (below BBL)	1580	135	2175	128	2915	119	4040	107	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: > 90

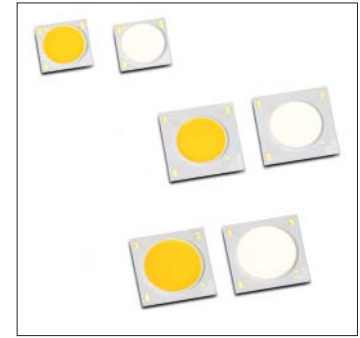
Minimum order quantity: 175 pcs.

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LUGA Shop Gen. 5 – 3500 lm to 20,000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 28x28 mm, 38x38 mm
- Light emitting surface (LES): Ø 17 mm, Ø 20 mm, Ø 22 mm, Ø 33 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Typ. voltage DC					Temperature coefficient mV/K	Typ. power consumption				
	700 mA V	1050 mA V	1400 mA V	1700 mA V	2100 mA V		700 mA W	1050 mA W	1400 mA W	1700 mA W	2100 mA W
DMS120***G	34.3	35.4	36.2	36.6	—		24.0	37.2	50.6	62.3	—
DMS12C***G	33.8	34.7	35.4	36	36.6		23.6	36.4	49.6	61.2	76.8
DMS18C***G	50.6	52	53.2	53.9	54.7		35.4	54.6	74.5	91.7	114.9
DMS18Q***G	49.1	50	50.8	51.3	52.1		34.4	52.5	71.1	87.3	109.5

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at I_c point		Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ\text{C min.}$	$^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	
DMS120***G	700	-40	+110	-40	+40	-40	+105	2000
	1050		+100					
	1400		+85					
	1700		+75					
DMS12C***G	700	-40	+115	-40	+40	-40	+105	2500
	1050		+105					
	1400		+100					
	1700		+90					
	2100		+80					
DMS18C***G	700	-40	+115	-40	+40	-40	+105	2500
	1050		+105					
	1400		+95					
	1700		+85					
	2100		+75					
DMS18Q***G	700	-40	+120	-40	+40	-40	+105	3000
	1050		+120					
	1400		+110					
	1700		+105					
	2100		+100					

Operating Life

at $t_p = 65^\circ\text{C}$

Lumen maintenance	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	2100 mA in hours	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	2100 mA in hours
	DMS120***G (at If)					DMS12C***G (at If)				
L90/B10	81,000	68,000	55,000	43,000	—	85,000	76,000	68,000	61,000	51,000
L80/B10	> 100,000	> 100,000	82,500	64,500	—	> 100,000	> 100,000	> 100,000	91,500	76,500
L70/B10	> 100,000	> 100,000	> 100,000	86,000	—	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000
	DMS18C***G (at If)					DMS18Q***G (at If)				
L90/B10	85,000	75,000	65,000	55,000	43,000	93,000	88,000	82,000	78,000	71,000
L80/B10	> 100,000	> 100,000	97,500	82,500	64,500	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000	86,000	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – 3500 lm to 20,000 lm

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code	
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA					
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W				
DMS120C27G	562241	warm white	2700	3430	143	4850	130	6120	121	7080	114	—	—	120	82	827/249	
DMS120C30G	562242	warm white	3000	3690	154	5220	140	6575	130	7615	122	—	—	120	85	830/249	
DMS120C30GB	562243	warm white	3000 (below BBL)	3480	145	4925	132	6205	123	7180	115	—	—	120	85	830/249	
DMS120C35G	562244	neutral white	3500	3765	157	5320	143	6705	133	7765	125	—	—	120	85	835/249	
DMS120C35GB	562245	neutral white	3500 (below BBL)	3550	148	5020	135	6335	125	7315	117	—	—	120	85	835/249	
DMS120C40G	562246	neutral white	4000	3840	160	5430	146	6840	135	7915	127	—	—	120	85	840/249	
DMS120C40GB	562247	neutral white	4000 (below BBL)	3620	151	5120	138	6450	127	7465	120	—	—	120	85	840/249	
DMS120C50G	562248	cool white	5000	3875	161	5780	155	6910	137	7985	128	—	—	120	85	850/249	
DMS120B50G	562249	cool white	5000	4135	172	5845	157	7365	146	8520	137	—	—	120	70	750/569	
DMS12CC27G	562258	warm white	2700	3500	148	5010	138	6410	129	7525	123	8860	115	120	82	827/249	
DMS12CC30G	562259	warm white	3000	3765	160	5395	148	6895	139	8105	132	9545	124	120	85	830/249	
DMS12CC30GB	562260	warm white	3000 (below BBL)	3545	150	5080	140	6505	131	7645	125	9000	117	120	85	830/249	
DMS12CC35G	562261	neutral white	3500	3835	163	5495	151	7030	142	8255	135	9720	127	120	85	835/249	
DMS12CC35GB	562262	neutral white	3500 (below BBL)	3620	153	5180	142	6635	134	7795	127	9175	119	120	85	835/249	
DMS12CC40G	562263	neutral white	4000	3910	166	5610	154	7170	145	8415	138	9910	129	120	85	840/249	
DMS12CC40GB	562264	neutral white	4000 (below BBL)	3690	156	5290	145	6765	136	7940	130	9350	122	120	85	840/249	
DMS12CC50G	562265	cool white	5000	3950	167	5660	155	7240	146	8505	139	10015	130	120	85	850/249	
DMS12CB40G	562266	neutral white	4000	4060	172	5820	160	7450	150	8745	143	10295	134	120	70	740/349	
DMS12CB50G	562267	cool white	5000	4210	178	6040	166	7725	156	9070	148	10680	139	120	70	750/569	
DMS18CC27G	562787	warm white	2700	5110	144	7300	134	9295	125	10875	119	12745	111	120	82	827/249	
DMS18CC30G	562788	warm white	3000	5490	155	7845	144	9990	134	11710	128	13730	119	120	85	830/249	
DMS18CC30GB	562789	warm white	3000 (below BBL)	5180	146	7400	136	9435	127	11050	121	12955	113	120	85	830/249	
DMS18CC35G	562790	neutral white	3500	5605	158	8005	147	10195	137	11935	130	13985	122	120	85	835/249	
DMS18CC40G	562791	neutral white	4000	5715	161	8160	149	10395	140	12170	133	14260	124	120	85	840/249	
DMS18CC50G	562792	cool white	5000	5770	163	8240	151	10495	141	12285	134	14400	125	120	85	850/249	
DMS18CB40G	562793	neutral white	4000	5935	168	8470	155	10790	145	12640	138	14815	129	120	70	740/349	
DMS18CB50G	562794	cool white	5000	6150	174	8785	161	11200	150	13110	143	15365	134	120	70	750/569	
DMS18QC27G	562797	warm white	2700	5650	164	8160	155	10575	149	12595	144	15070	138	120	82	827/249	
DMS18QC30G	562798	warm white	3000	6080	177	8785	167	11370	160	13570	155	16195	148	120	85	830/249	
DMS18QC30GB	562799	warm white	3000 (below BBL)	5735	167	8290	158	10725	151	12805	147	15270	139	120	85	830/249	
DMS18QC35G	562800	neutral white	3500	6200	180	8960	171	11595	163	13820	158	16505	151	120	85	835/249	
DMS18QC40G	562801	neutral white	4000	6320	184	9135	174	11825	166	14095	161	16845	154	120	85	840/249	
DMS18QC50G	562802	cool white	5000	6380	185	9220	176	11945	168	14235	163	16995	155	120	85	850/249	
DMS18QB40G	562803	neutral white	4000	6570	191	9485	181	12275	173	14635	168	17480	160	120	70	740/349	
DMS18QB50G	562804	cool white	5000	6810	198	9840	187	12735	179	15185	174	18130	166	120	70	750/569	

* Colour tolerance: 2 MacAdam (CRI > 80) | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI Ra: > 80 / > 65

Minimum order quantity: DMS120/12C/18C – 100 pcs., DMS18Q – 75 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – 3500 lm to 15,000 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI R _a	Photo-metric code	
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA					
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W				
DMS120C31GP	562250	pearl white	3100	3620	151	5110	137	6440	127	7450	120	—	—	120	85	831/249	
DMS120C32GC	562251	clear white	3200	3630	151	5140	138	6480	128	7500	120	—	—	120	85	832/249	
DMS120S31GP	562256	pearl white	3100	2925	122	4140	111	5215	103	6025	97	—	—	120	95	931/249	
DMS120S32GC	562257	clear white	3200	2940	123	4160	112	5235	103	6060	97	—	—	120	95	932/249	
DMS12CC31GP	562268	pearl white	3100	3685	156	5285	145	6755	136	7935	130	9340	122	120	85	831/249	
DMS12CC32GC	562269	clear white	3200	3705	157	5315	146	6790	137	7970	130	9385	122	120	85	832/249	
DMS12CS31GP	562274	pearl white	3100	2985	126	4280	118	5470	110	6420	105	7560	98	120	95	931/249	
DMS12CS32GC	562275	clear white	3200	2995	127	4295	118	5495	111	6450	105	7595	99	120	95	932/249	
DMS18CC31GP	562795	pearl white	3100	5380	152	7685	141	9790	131	11460	125	13435	117	120	85	831/249	
DMS18CC32GC	562796	clear white	3200	5405	153	7725	141	9840	132	11520	126	13505	118	120	85	832/249	
DMS18QC31GP	562805	pearl white	3100	5955	173	8605	164	11145	157	13285	152	15870	145	120	85	831/249	
DMS18QC32GC	562806	clear white	3200	5985	174	8650	165	11200	158	13350	153	15970	146	120	85	832/249	

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: > 90 / > 80

Minimum order quantity: DMS120/12C/18C – 100 pcs., DMS18Q – 75 pcs.

LUGA Shop Gen. 5 – 3000 lm to 8000 lm HiCRI

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI R _a	Photo-metric code	
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA					
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W				
DMS120D27G	562252	warm white	2700	2700	113	3815	103	4805	95	5555	89	—	—	120	95	927/249	
DMS120S30G	562253	warm white	3000 (below BBL)	2860	119	4040	109	5085	100	5885	94	—	—	120	95	930/249	
DMS120S35G	562254	neutral white	3500 (below BBL)	3025	126	4285	115	5395	107	6235	100	—	—	120	95	935/249	
DMS120S40G	562255	neutral white	4000 (below BBL)	3145	131	4445	119	5595	111	6470	104	—	—	120	95	940/249	
DMS12CD27G	562270	warm white	2700	2750	117	3940	108	5040	102	5915	97	6965	91	120	95	927/249	
DMS12CS30G	562271	warm white	3000 (below BBL)	2910	123	4170	115	5335	108	6265	102	7375	96	120	95	930/249	
DMS12CS35G	562272	neutral white	3500 (below BBL)	3090	131	4420	121	5655	114	6635	108	7815	102	120	95	935/249	
DMS12CS40G	562273	neutral white	4000 (below BBL)	3200	136	4585	126	5870	118	6890	113	8110	106	120	95	940/249	

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: > 90

Minimum order quantity: DMS120/12C/18C – 100 pcs., DMS18Q – 75 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – 3000 lm to 5500 lm Food

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* (K)	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS12CG30G	562766	warm white	3000	3065	84	3925	79	4615	75	5435	71	120	85 (spec. spectrum: HiGa)	830/349
DMS12CG40G	562767	neutral white	4000	3175	87	4060	82	4765	78	5610	73	120	85 (spec. spectrum: HiGa)	840/349
DMS12CP19G	562768	"pink effect"	2000	2420	66	3095	62	3635	59	4280	56	120	82	820/349
DMS12CP40G	562769	"white effect"	4000	2900	80	3715	75	4355	71	5130	67	120	70 (spec. spectrum: HiGa)	740/349

* Colour tolerance: 3 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

Minimum order quantity: 100 pcs.

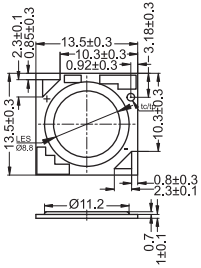
Typical Applications

DMS12CG30G 562766	DMS12CG40G 562767	DMS12CP19G 562768 "pink effect"	DMS12CP40G 562769 "white effect"
<ul style="list-style-type: none"> • Bread & Bakery • Fruits • Vegetables • Cheese 	<ul style="list-style-type: none"> • Fish • Drugstore • Drapery 	<ul style="list-style-type: none"> • Meat 	<ul style="list-style-type: none"> • Meat

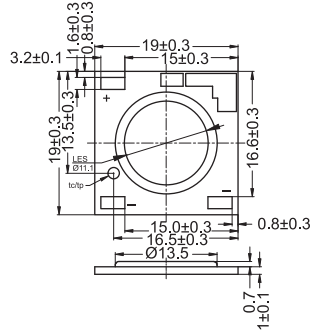
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LUGA Shop Gen. 5

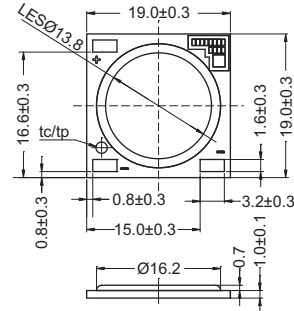
DMS123



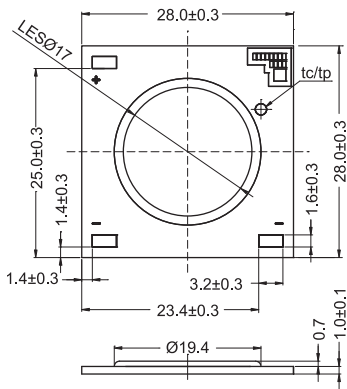
DMS124



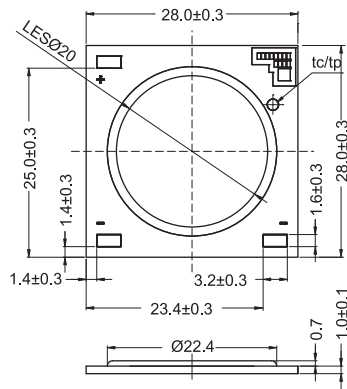
DMS125/126/128



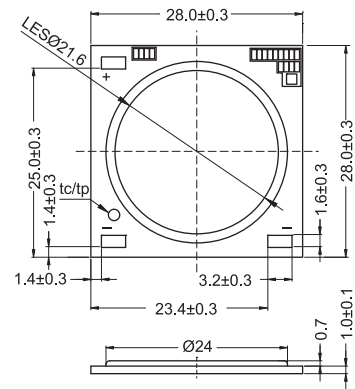
DMS120



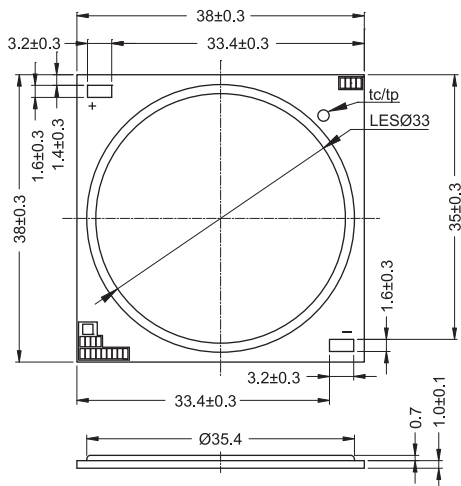
DMS12C



DMS18C



DMS18Q



The clearance and creepage distances are designed for working voltages up to:

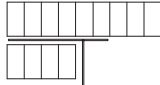
Type	Basic insulation	Reinforced insulation
DMS 123/124/125/126/128***G	235 V DC	60 V DC
DMS 120/12C/18C/18Q***G	330 V DC	175 V DC

Thickness of PCB is included in calculation.

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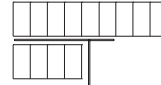
LUGA Shop Gen. 5

Product Code



CCT	CRI	Type				
		DMS123	DMS124	DMS125	DMS126	DMS128
2700K	82	23C27G	24C27G	25C27G	26C27G	28C27G
3000K	85	23C30G	24C30G	25C30G	26C30G	28C30G
3000K*	85	—	—	25C30g	26C30g	28C30g
3100K**	85	23C31G	24C31G	25C31G	26C31G	28C31G
3200K***	85	—	—	25C32G	26C32G	28C32G
3500K	85	23C35G	24C35G	25C35G	26C35G	28C35G
3500K*	85	—	—	25C35g	26C35g	28C35g
4000K	85	23C40G	24C40G	25C40G	26C40G	28C40G
4000K*	85	—	—	25C40g	26C40g	28C40g
5000K	85	23C50G	24C50G	25C50G	26C50G	28C50G
5000K	70	—	—	—	—	28B50G
2700K	95	23D27G	24D27G	25D27G	26D27G	28D27G
3000K*	95	23S30G	24S30G	25S30G	26S30G	28S30G
3100K**	95	23S31G	24S31G	25S31G	26S31G	28S31G
3200K***	95	—	—	—	26S32G	28S32G
3500K*	95	23S35G	24S35G	25S35G	26S35G	28S35G
4000K*	95	23S40G	24S40G	25S40G	26S40G	28S40G

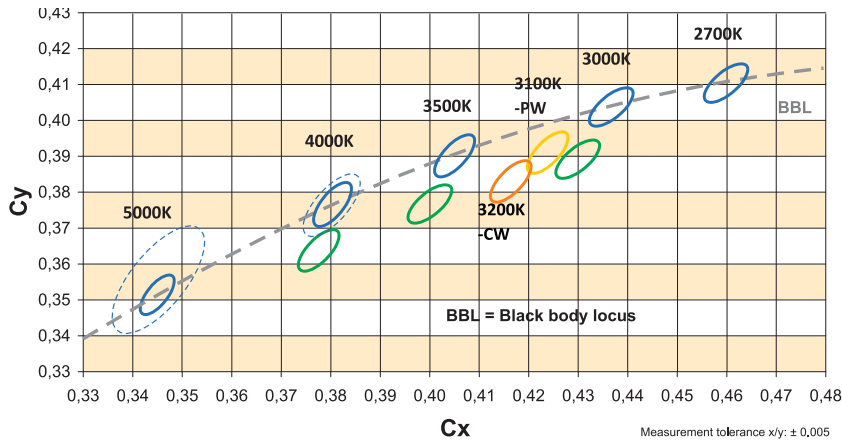
* Below BBL
 ** Pearl White
 *** Clear White



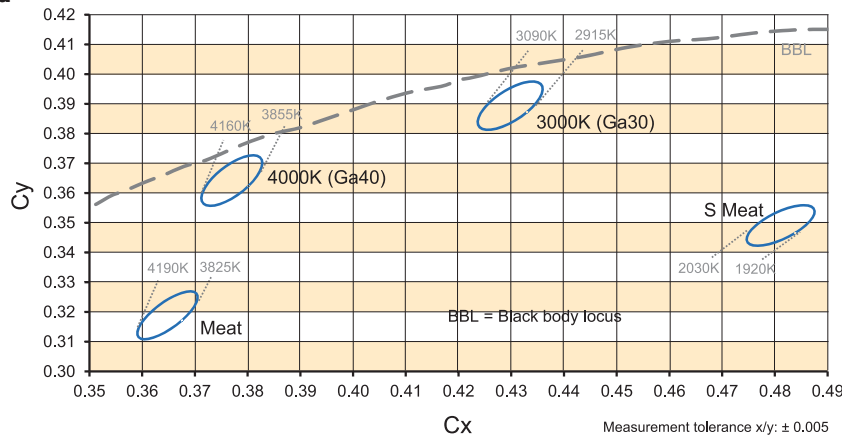
CCT	CRI	Type			
		DMS120	DMS12C	DMS18C	DMS18Q
2700K	82	20C27G	2CC27G	8CC27G	8QC27G
3000K	85	20C30G	2CC30G	8CC30G	8QC30G
3000K*	85	20C30g	2CC30g	8CC30g	8QC30g
3100K**	85	20C31G	2CC31G	8CC31G	8QC31G
3200K***	85	20C32G	2CC32G	8CC32G	8QC32G
3500K	85	20C35G	2CC35G	8CC35G	8QC35G
3500K*	85	20C35g	2CC35g	—	—
4000K	85	20C40G	2CC40G	8CC40G	8QC40G
4000K*	85	20C40g	2CC40g	—	—
5000K	85	20C50G	2CC50G	8CC50G	8QC50G
4000K	70	—	2CB40G	8CB40G	8QB40G
5000K	70	20B50G	2CB50G	8CB50G	8QB50G
2700K	95	20D27G	2CD27G	—	—
3000K*	95	20S30G	2CS30G	—	—
3100K**	95	20S31G	2CS31G	—	—
3200K***	95	20S32G	2CS32G	—	—
3500K*	95	20S35G	2CS35G	—	—
4000K*	95	20S40G	2CS40G	—	—

* Below BBL
 ** Pearl White
 *** Clear White

Bins LUGA Shop



Bins LUGA Shop Food



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – Ready-to-Assemble

Technical Notes

- LED module for integration into luminaires
- Dimensions: Ø 44 mm or Ø 50 mm
- TIM (Thermal Interface Material) integrated
- Use of external LED constant current driver



Electrical Characteristics / Operating Life / Bins

Datas are mentioned on the product pages of LED modules in this data sheet.

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

The mentioned maximum ratings are listed on the product pages of the LED modules. The operating and storage temperature are different.

Operating temperature: -40 to +105 °C / storage temperature: -20 to +40 °C

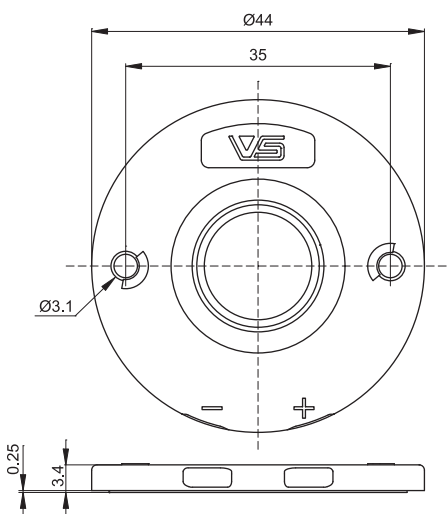
Optical Characteristics

The optical characteristics are mentioned on the product pages of LED modules in this data sheet.

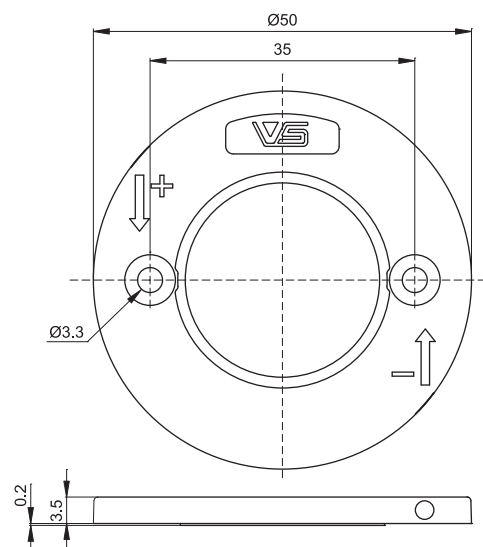
The typical luminous flux differs for the Ready-to-Assemble modules: -1%

Mechanical Dimensions

U-DMS 124/125/126/128



U-DMS 120/12C/18C



Assembly Instructions

Step 1: Put in the leads into the push-in terminals.

U-DMS 124/125/126/128:

- Conductor cross-section: 0.34–0.75 mm², solid or stranded conductor with tinned lead ends
- Stripped length: 10–12 mm

U-DMS 120/12C/18C:

- Conductor cross-section: 0.5–0.75 mm², solid or stranded conductor with tinned lead ends
- Stripped length: 7–8 mm

Step 2: Remove the transparent protection film on the rear side of the module.

Step 3: Screw the module with M3 screws onto the heat sink.

- Min. torque: 0.3 Nm
- Max. torque: 0.5 Nm

Step 1 (electrical connection) can also be done optional as final step.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 5 – Ready-to-Assemble

Ready-to-Assemble – LUGA Shop Gen. 5 – 1500 lm to 5000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS124C27G	564705
U-DMS124C30G	564267
U-DMS124C35G	564706
U-DMS124C40G	564268
U-DMS124C50G	564707
U-DMS125C27G	564708
U-DMS125C30G	564271
U-DMS125C30GB (below BBL)	564709
U-DMS125C35G	564710
U-DMS125C35GB (below BBL)	564711
U-DMS125C40G	564272
U-DMS125C40GB (below BBL)	564712
U-DMS125C50G	564713
U-DMS126C27G	564714
U-DMS126C30G	564275
U-DMS126C30GB (below BBL)	564715
U-DMS126C35G	564716
U-DMS126C35GB (below BBL)	564717
U-DMS126C40G	564276
U-DMS126C40GB (below BBL)	564718
U-DMS126C50G	564719
U-DMS128C27G	563456
U-DMS128C30G	563457
U-DMS128C30GB (below BBL)	564720
U-DMS128C35G	564721
U-DMS128C35GB (below BBL)	564722
U-DMS128C40G	563458
U-DMS128C40GB (below BBL)	564723
U-DMS128C50G	564724
U-DMS128B50G (CRI70)	564725

Pearl White / Clear White – 1500 lm to 4500 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS124C31GP (PearlWhite)	564726
U-DMS124S31GP (PearlWhite)	564270
U-DMS125C31GP (PearlWhite)	564727
U-DMS125C32GC (ClearWhite)	564728
U-DMS125S31GP (PearlWhite)	564274
U-DMS126C31GP (PearlWhite)	564277
U-DMS126C32GC (ClearWhite)	564278
U-DMS126S31GP (PearlWhite)	564280
U-DMS126S32GC (ClearWhite)	564281
U-DMS128C31GP (PearlWhite)	564282
U-DMS128C32GC (ClearWhite)	564283
U-DMS128S31GP (PearlWhite)	564285
U-DMS128S32GC (ClearWhite)	564286

Hi-CRI – 1000 lm to 4000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS124D27G	564729
U-DMS124S30G (below BBL)	564573
U-DMS124S35G (below BBL)	564730
U-DMS124S40G (below BBL)	564269
U-DMS125D27G	564731
U-DMS125S30G (below BBL)	564575
U-DMS125S35G (below BBL)	564732
U-DMS125S40G (below BBL)	564273
U-DMS126D27G	564733
U-DMS126S30G (below BBL)	564576
U-DMS126S35G (below BBL)	564734
U-DMS126S40G (below BBL)	564279
U-DMS128D27G	564735
U-DMS128S30G (below BBL)	564577
U-DMS128S35G (below BBL)	564736
U-DMS128S40G (below BBL)	564284

Ready-to-Assemble – LUGA Shop Gen. 5 – 3500 lm to 15000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120C27G	564737
U-DMS120C30G	564287
U-DMS120C30GB (below BBL)	564738
U-DMS120C35G	564646
U-DMS120C35GB (below BBL)	564739
U-DMS120C40G	564288
U-DMS120C40GB (below BBL)	564740
U-DMS120C50G	564741
U-DMS120B50G (CRI70)	564742
U-DMS12CC27G	564743
U-DMS12CC30G	563459
U-DMS12CC30GB (Below BBL)	564744
U-DMS12CC35G	564746
U-DMS12CC35GB (below BBL)	564745
U-DMS12CC40G	563460
U-DMS12CC40GB (below BBL)	564747
U-DMS12CC50G	564748
U-DMS12CB40G (CRI70)	564749
U-DMS12CB50G (CRI70)	564750
U-DMS18CC27G	564751
U-DMS18CC30G	564303
U-DMS18CC30GB (below BBL)	564752
U-DMS18CC35G	564753
U-DMS18CC40G	564304
U-DMS18CC50G	564754
U-DMS18CB40G (CRI70)	564755
U-DMS18CB50G (CRI70)	564756

Pearl White / Clear White – 3500 lm to 15000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120C31GP (PearlWhite)	564289
U-DMS120C32GC (ClearWhite)	564290
U-DMS120S31GP (PearlWhite)	564292
U-DMS120S32GC (ClearWhite)	564293
U-DMS12CC31GP (PearlWhite)	564294
U-DMS12CC32GC (ClearWhite)	564295
U-DMS12CS31GP (PearlWhite)	564297
U-DMS12CS32GC (ClearWhite)	564298
U-DMS18CC31GP (PearlWhite)	564305
U-DMS18CC32GC (ClearWhite)	564306

Hi-CRI – 3000 lm to 8000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120D27G	564757
U-DMS120S30G (below BBL)	564578
U-DMS120S35G (below BBL)	564758
U-DMS120S40G (below BBL)	564291
U-DMS12CD27G	564759
U-DMS12CS30G (below BBL)	564579
U-DMS12CS35G (below BBL)	564760
U-DMS12CS40G (below BBL)	564296

Food

Ready-to-Assemble module	
Type	Ref. No.
U-DMS12CG30G (3000K, HighGamut)	564299
U-DMS12CG40G (4000K, HighGamut)	564300
U-DMS12CP19G (Meat "pink effect")	564301
U-DMS12CP40G (Meat "white effect")	564302

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

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Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - do not touch the yellow phosphorus layer
- The module must be fixed onto a thermally conductive surface.
- Safe operation only possible by the use of external constant current sources (I_{max} , see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
 - SELV (Safety Extra Low Voltage); $U_{max} \leq 60$ V
 - I_{max} . (see table "Maximum Ratings") must not be exceeded.
- When operating devices will be selected care has been taken to ensure that the maximum values (see table "Maximum Ratings") will not be exceeded.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- Measurement tolerances:
 - luminous flux: ± 7 %
 - voltage: ± 3 %
 - CRI: ± 1 %
- Maximum allowed number of switching cycles: 15,000
- A parallel connection of the modules is not allowed.
- To ensure problem-free operation, the specified maximum temperature at the t_c point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.

- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Detailed information can be found in our "Chemical Incompatibility" PDF on our website www.vossloh-schwabe.com
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471
Rating in accordance with IEC / TR 62778: risk group 1
Except the following products at the mentioned operating current are classified into risk group 2:

> 500 mA	> 1050 mA	> 1400 mA	> 2100 mA
DMS124C50G	DMS126C40G	DMS12CB50G	DMS12CB40G
	DMS126C40GB	DMS18CC50G	DMS12CC40G
	DMS128C40G	DMS18CB40G	DMS12CC40GB
	DMS128B50G	DMS128C40GB	DMS18CC35G
	DMS128C50G	DMS120B50G	
	DMS120C50G	> 1700 mA	
	DMS18CB50G	DMS120C40G	> 2400 mA
> 900 mA		DMS120C40GB	DMS18QB50G
DMS126C50G		DMS12CC50G	
		DMS18CC40G	

Product Guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com).
We will be happy to send you these conditions upon request.

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Reflectors:

- ACL-Lichttechnik GmbH
www.reflektor.com
- Jordan Luxar GmbH & Co. KG
www.jordan-luxar.de
- JORDAN REFLEKTOREN GmbH & Co. KG
www.jordan-reflektoren.de
- LEDIL
www.ledil.com

Heat sinks with active cooling:

- AVC
www.avc-europa.de
- Nuventix, Inc.
www.nuventix.com
- Sunon
www.sunon.com
- MechaTronix
www.led-heatsink.com
- Colliance, Inc.
www.cooliance.eu

Heat sinks with passive cooling:

- AVC
www.avc-europa.de
- Fischer Elektronik GmbH & Co. KG
www.fischerelektronik.de
- Frigo Dynamics
www.frigodynamics.com
- MechaTronix
www.led-heatsink.com

LED Constant Current Drivers

Please visit our homepage for details for suitable

LED constant current drivers: www.vossloh-schwabe.com